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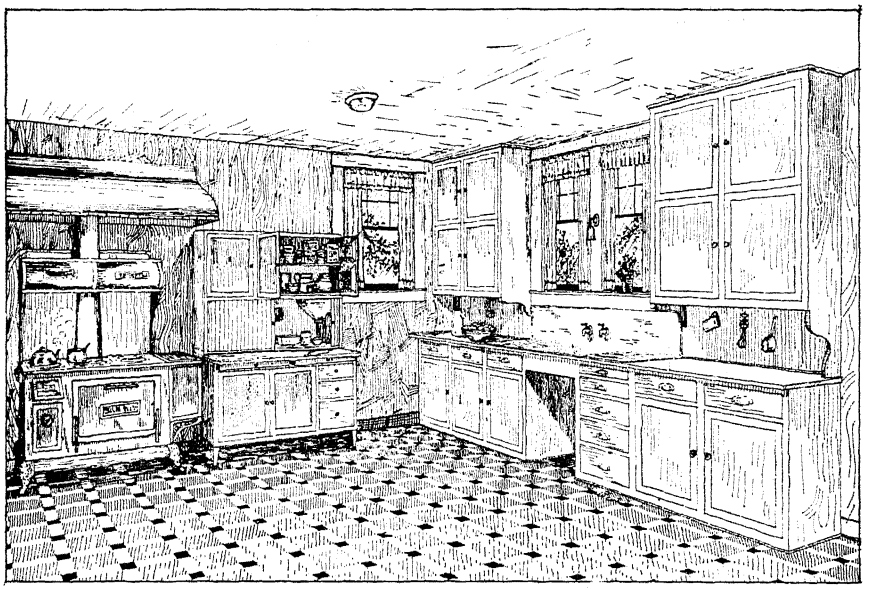
JUST KITCHENS



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JUST KITCHENS

The kitchen is the farm woman's workshop, the place in which she spends about 70 per cent of her working day. This large amount of time can in many cases be reduced if the kitchen is carefully planned and has adequate equipment properly placed.

The hours, even if not actually reduced, will seem shorter if the kitchen is attractive in color combination and has at least one or two windows through which a bit of garden or field may be seen. Every item of this workshop should receive careful attention in

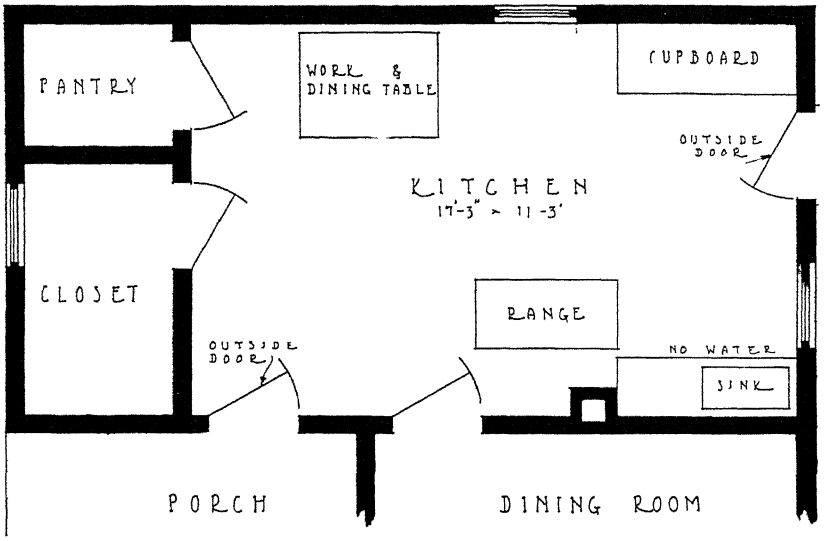

Fig. 1.—A kitchen before remodeling. This plan is typical of many kitchens now found in farm homes. A few pieces of equipment widely scattered in a large room cause many unnecessary steps. No one feature of this kitchen made so many steps as the pantry. It was necessary to travel from one corner to the other in preparing a meal.

planning, in order that tasks may be made easier and not more difficult. This can mean greater pleasure in doing the work, as well as more time and energy to enter into the plans and pleasures of the other members of the family.

GROUPING THE EQUIPMENT

Plan the kitchen so that the work may be done with the fewest possible steps. A good kitchen is one in which the worker can reach all equipment with little walking. Such a kitchen requires compact grouping of equipment.

Compact grouping will do more toward solving the step-saving problem of the kitchen than anything else. Compact grouping

merely means to arrange the equipment in the smallest convenient workable area.

In many kitchens the range, the sink, and the work table are widely separated. Since most of the walking in the kitchen is back and forth between these three pieces, many steps are wasted in traveling through these empty spaces. If these spaces are eliminated or made as small as possible, from one-half to two-thirds of the worker's time will be saved. Such has proved the case in the remodeled kitchen shown in Figs. 1, 2, and 3. Compact grouping has eliminated the spaces in this kitchen.

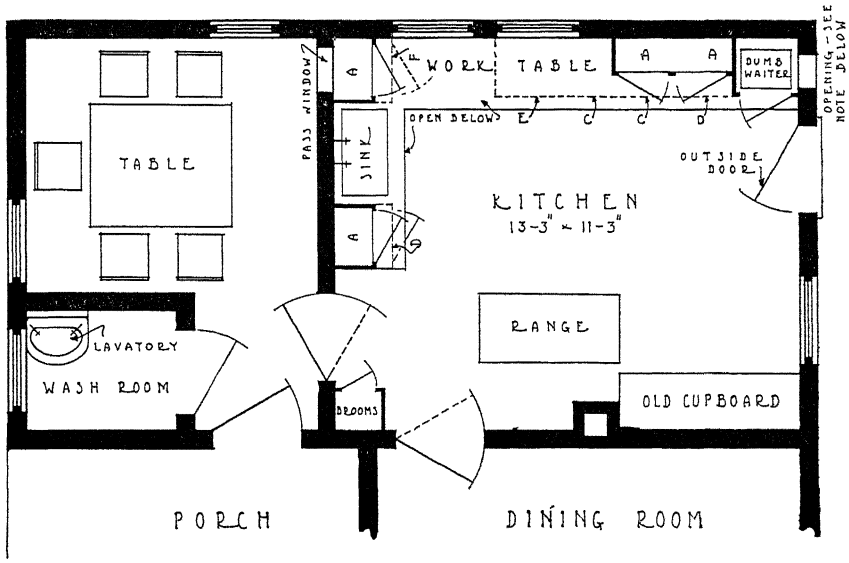

Fig. 2.—The same kitchen after remodeling. The step-making pantry has been replaced by the compact handy built-in equipment (for detailed drawings see Figs. 8 and 9). Note that the work table and sink are close together and both are near the range. Food storage cupboards and bins, dumb-waiter and utensils closet are handy to the work table. China cupboards are on both sides of the sink. The opening in the wall permits using the built-in dumb-waiter as a cold closet in winter time. It should be kept closed through the summer when the dumb-waiter is lowered to the cellar or cold well.

In grouping the equipment there are certain pieces that should be placed together to work as one unit. Thus, the cupboards should be placed next to or above the sink. Such an arrangement will permit taking the dishes off the drainboard, wiping them, and placing them in the cupboard, with no walking.

The work table and food storage bins should be near the shelves and cupboards in which pans and kettles are stored, since they are so closely related in the preparation of food. We have this grouping in the modern kitchen cabinet. Such compact arrangement can be constructed of built-in equipment as shown in Figs. 4 and 5.

WHAT CAN BE DONE WITH THE LARGE KITCHEN?

In many kitchens the pieces of equipment are widely separated. Doing the work in such a kitchen requires many more steps than should be necessary. The wide spaces between pieces of equipment may be caused by the location of doors and windows.

In case of poorly located doors and windows, it might be well to close these and cut others. Sometimes, a door which is unnecessary may be closed and a piece of equipment placed in front of it.

If the kitchen is too large, making it smaller will get rid of the vacant spaces. A smaller kitchen compels more compact grouping, and compact grouping means a step-saving kitchen.

A kitchen may be made smaller by one of three methods:

1. Group the Kitchen Equipment in One Part of the Kitchen.——While this method does not actually reduce the size of the kitchen, it accomplishes the same result through reducing the working area. This method is the one that can be used in improving the arrangement of most kitchens. Because a kitchen is large does not mean that the equipment must be scattered all over it.

This method is especially adaptable to kitchens in which meals are served. The kitchen equipment can be grouped at one end and the other end of the room may serve as a dining area.

2. Make the Kitchen Smaller by Partitions.—This is a good method to follow in reducing the size of an extremely large kitchen. That part of the original room not used for the new kitchen can be used for some other purpose such as washroom, bedroom, or office. Fig. 2 shows a kitchen reduced in size by this method. Part of the old kitchen was made into a washroom and breakfast room.

3. Build a New Kitchen.—Sometimes it is cheaper to build a new kitchen than to remodel an old one, especially if there is need of an extra room. Changing the old kitchen into a laundry, wash room, bedroom, or dining-room, and building a new kitchen, offers the best opportunity to plan a compact and convenient kitchen. Three exposures can usually be obtained, and windows can be so placed that light is thrown on all work surfaces. A kitchen of this type is shown in Figs. 4 and 5.

PLAN THE DOORS AND WINDOWS

Poorly spaced doors and windows may cause scattered placing of equipment. In the past, little thought was given to kitchen planning, and as a result, the doors and windows were located without any consideration of the equipment.

In remodeling an old kitchen or building a new one, the windows and doors should be so placed that they do not interfere with the grouping of related pieces of equipment.

THE WINDOWS

The number, size, and position of the windows determine to a large extent the comfort and convenience of a kitchen. The windows may mean the difference between a dark, gloomy, poorly arranged kitchen and one that is bright, cheerful, and convenient in which to work. If improperly selected and located, they can prevent the best arrangement of kitchen equipment.

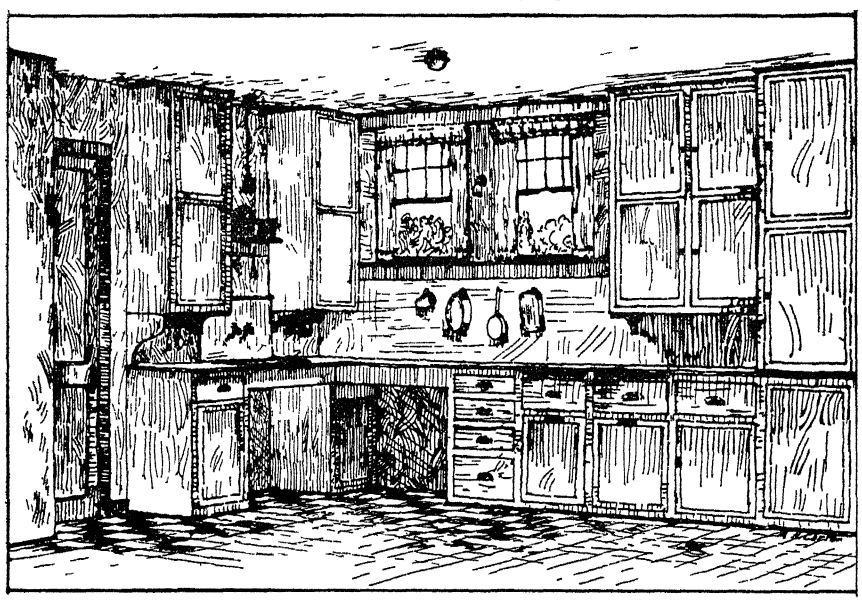

Fig 3.—View of the built-in equipment in the remodeled kitchen shown in Fig 2 This equipment is built up out of the units shown on pages 11 and 13 Note the compactness and handiness of this arrangement

Number and Size.—Adequate natural lighting is an essential requirement of a good kitchen. A large glass area is therefore necessary. A kitchen should have a total glass area in its windows, its outside door and transom equal to at least one-fifth (20 per cent) of its floor area. Thus, a kitchen 12 by 8 feet having 96 square feet of floor area, should have one-fifth of this amount, or 20 square feet, of glass area.

A good sized window for kitchens is of double hung construction, using a sash 24 inches wide by 18 inches high (not 18 inches wide by 24 inches high). This size works in well with built-in equipment, as can be seen in Figs. 6 and 7.

Position of Windows.—The windows found in many kitchens are too low, making it impossible to construct continuous built-in cupboards and work surfaces along the walls of the kitchen. In order to place a sink beneath a window, the window stool or sill should be 52 inches up from the floor.

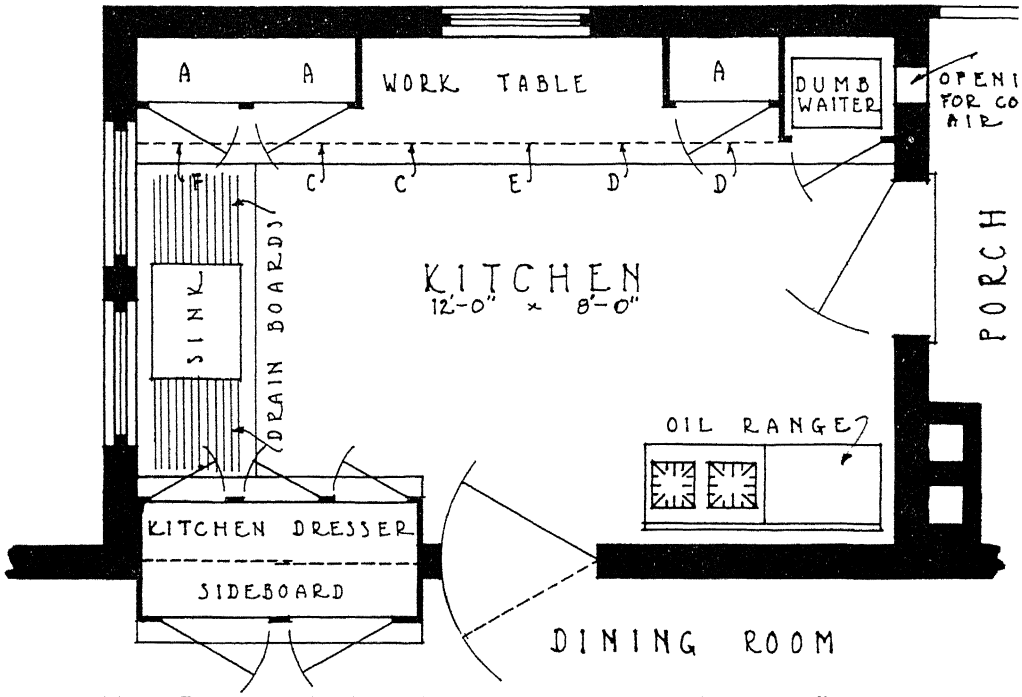

Fig. 4.—This small kitchen is a study in compact arrangement. The walls are lined with continuous built-in cupboards, bins, and drawers. A large amount of storage space is therefore condensed into a small area. Standing in the middle of the floor the worker can reach everything in one or two steps. Note the combination kitchen dresser and sideboard. This built-in feature has a pass window through the wall. Dishes can be passed through from one room to another. No refrigerator is shown. If one were used it would be located next the dumb-waiter in place of some of the built-in equipment. The letters refer to the built-in units in Figs. 8 and 9.

In many old kitchens, two windows are built singly in the same wall at about equal distances from the ends of the room. It is a much better arrangement to group the windows in the center of the room as more unbroken wall space would then be left for the placing of equipment.

The kitchen should have two exposures, that is, there should be windows in two walls, or windows in one wall and a door with glass in another wall. Cross ventilation is thus assured. A transom should be provided over the outside door to carry out odors and gases.

Experiments show that the temperature of the moist, still air of a kitchen where women work is sometimes higher than that out in the harvest field. Still air is much more unbearable than moving air. Where electricity is available, an electric fan placed in or near the window will keep the air moving and make the kitchen

Fig. 5 —A view of the kitchen shown in Fig. 4. An idea of the compactness of the kitchen can be obtained from this drawing. Note the handiness of all cupboards.

a comfortable work room. Where windows and doors are so placed as to give good cross ventilation, the temperature of the kitchen is lowered by the natural motion of the air through the room.

ARTIFICIAL LIGHT

Artificial lighting is an important consideration in planning the kitchen. A single "drop" light hung down from the center of

the ceiling is a poor arrangement, as the worker is always standing in her own light. If a bright center light is placed up against the ceiling and supplemented by bracket lights placed so as to throw light on the sink, stove, and work table, the room will be well lighted.

Coal oil wall lamps with reflectors may be used where gas or electricity is not available. They can be so placed as to throw light upon all work surfaces.

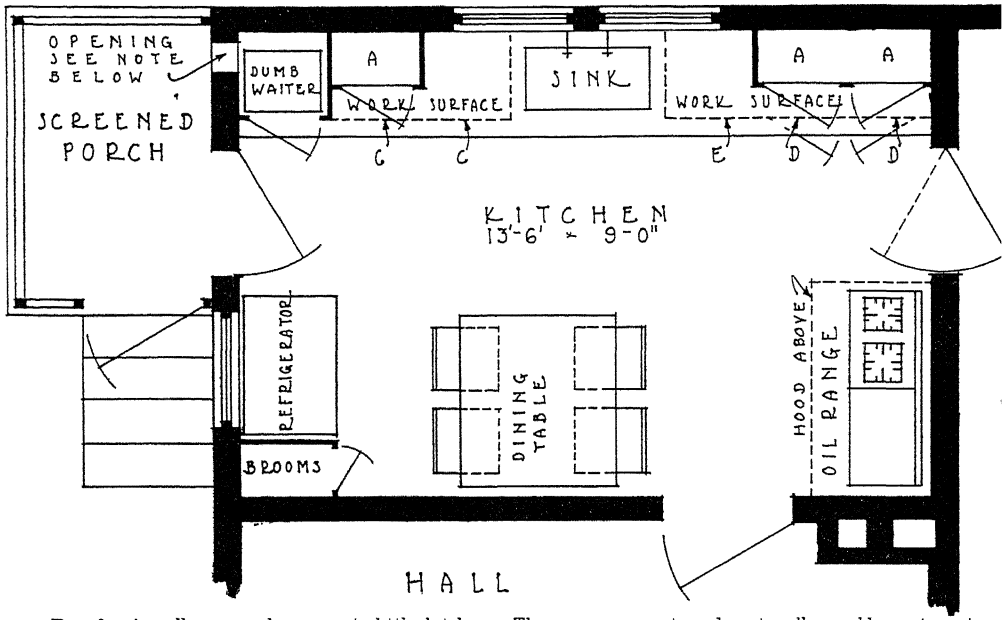

Fig 6.—A well arranged, compact little kitchen. The opening mentioned is to allow cold air to enter making it possible to use the dumb-waiter as a cold closet or refrigerator during the winter. In summer the dumb-waiter is run down below the cellar floor into a pit or well where the air is cool enough to keep food from spoiling. Note sequence of storage, work table, and sink, allowing work to proceed toward the stove in an orderly manner.

DOORS

Three or four doors giving access to adjoining rooms are probably necessary. More than this should be avoided in order to have wall space for built-in cupboards, cabinets, and sink.

A door should be built about 18 inches from the corner of the room to leave wall space for shelves or a cupboard back of the open door. Otherwise, this space is wasted. Doors of plain design require less care than those with many cross panels or those of fancy design. A swinging door should lead from the kitchen to the dining-room. Glass in the outside door increases the light without taking up additional wall space.

PANTRIES

Just as the old-fashioned parlor has seen its day, so now is the kitchen pantry passing out of existence. There are several good reasons why the pantry is no longer considered a necessary part of a good kitchen. First, it usually requires too many steps. Situated in a far corner as a pantry generally is, it causes much trotting back and forth from the work table or sink with utensils and supplies. Second, the pantry is a "catch all" for dust, overshoes, skates,

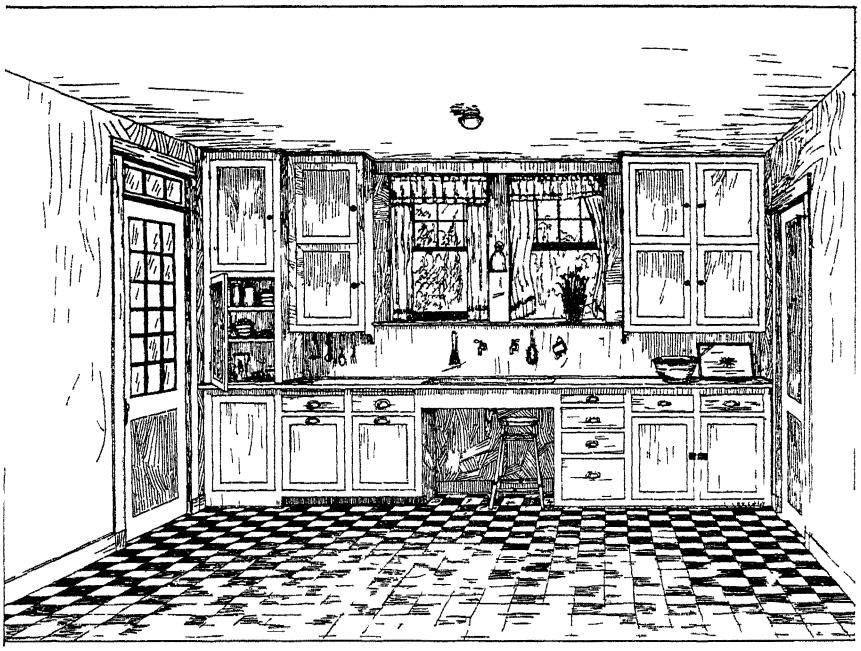

Fig 7.—A view of the built in equipment in the kitchen shown in Fig 6 This method of arranging the sink in the center of a group below two windows is a common and efficient arrangement Supply cupboards, dumb-waiter, bins are grouped on the left and china closet utensil drawers and cupboards are compactly arranged on the right This equipment is constructed of the units shown on pages 11 and 13

shoeshining outfits, and other things which do not belong there. Third, the pantry is a poor investment. The cost of a pantry will buy all the built-in equipment for the average kitchen.

For these reasons the pantry is giving place to built-in cupboards and bins which can be made to line the walls of the kitchen.

BUILT-IN EQUIPMENT

As compact grouping is the solution of kitchen arrangement, so built-in equipment is the key to compact grouping. Built-in equipment includes work table, cupboards, ironing board, fuel bins, dumb-waiter, the sink—in fact, all kitchen equipment can be built

in with the exception of the stove. Even it may have a hood above it for collecting steam and odors from the cooking; such a hood is shown on the cover page.

Height of Work Surfaces.—Scientific experiments show that the housewife uses more energy when she works on surfaces of uncomfortable height, than when the equipment is adjusted to suit her height. Many women have tired backs and round shoulders from working while standing or sitting at tables too high or too low.

A very simple test for the height of the work surface is: Stand erect and place the palms of the hands flat upon the work surface. If the table is too high, cut off part of the table legs. If it is too low, raise it by using casters or attaching small blocks to the bottom of the table legs. A new top can be attached to the table and the old top used as a shelf, provided there is space enough to allow for cleaning.

In testing the height of the sink, measure from the bottom of the sink, not from the drainboard, because the dish pan rests on the bottom of the sink during dish washing. Where the sink is low and cannot be changed, place the dishpan on a pan or wire rack.

On pages 11 and 13 are shown working drawings of built in equipment. This equipment has been designed in units. It is possible to join these units in many combinations. Examples are shown in Figs. 3, 5, and 7.

Following is a description of each unit and some points to observe in constructing them.

Units A and B. Upper Cupboards.—These units differ only in the number of doors, unit A having two small doors, while unit B has a single large door. These units are to be placed upon the wall and up against the ceiling. Shelves which are too high can be used for things needed only occasionally. Shelves are adjustable.

Unit C. Bin Units.—This unit has a work surface, a molding board, a drawer, and a bin for flour, sugar, or potatoes. Drawers should operate on guides to prevent them binding when pushed in or pulled out. It is good construction to have a stop to prevent the drawer from going back farther than flush with the face of the unit. Bins should be made removable for cleaning. Several of these units and unit E built together provide an excellent work table, especially since they have toe space at the floor.

This unit is built on the floor and against the wall.

Unit D. Storage Cupboard.—This unit makes a fine cupboard for food, pots, and pans. It has a work surface of maple, a drawer

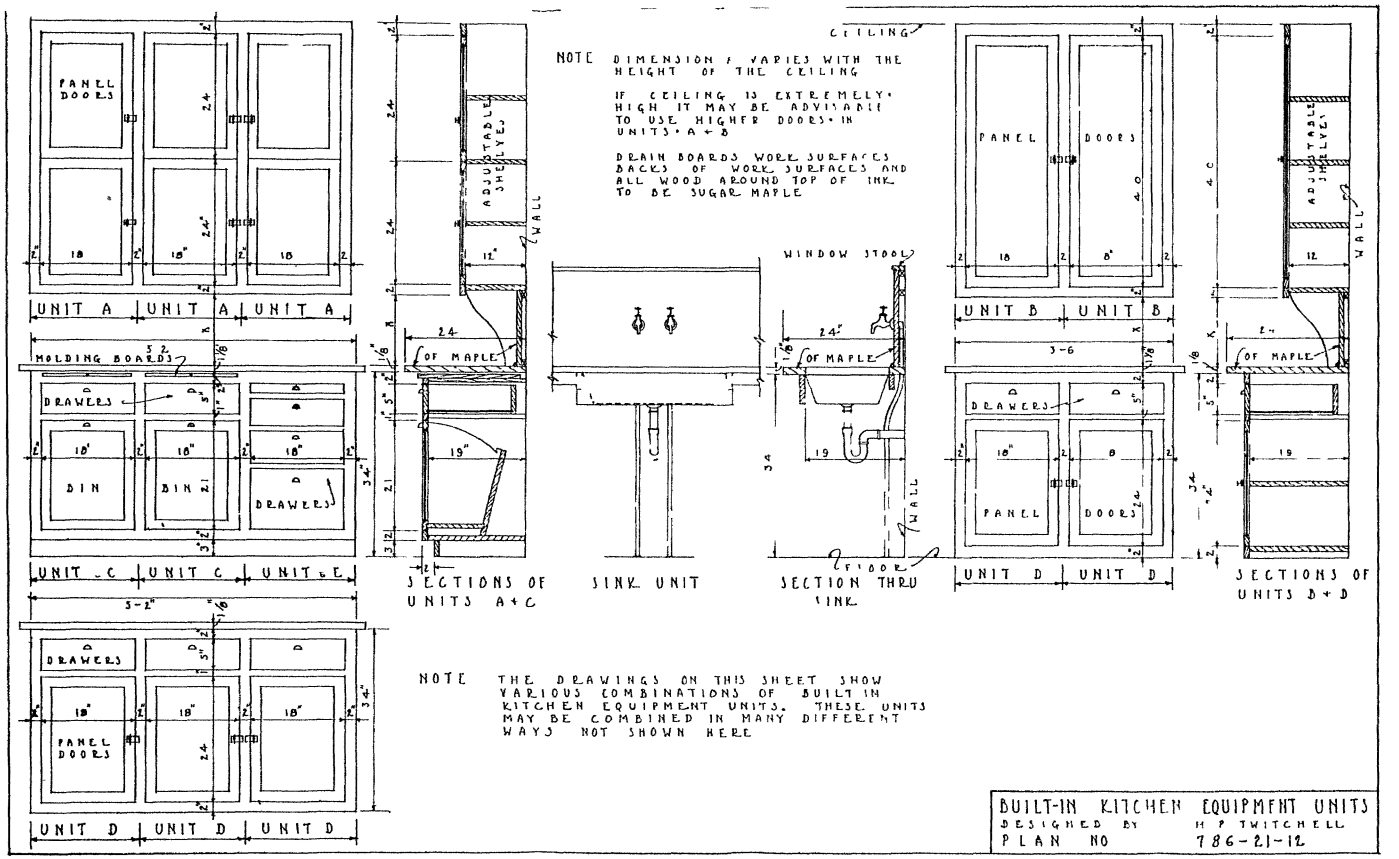

Fig 8—Working drawings of units A, B, C, D, E, and sink unit, of the built-in kitchen equipment

and a cupboard below with a hinged door. Like unit C it is built to rest on the floor and against the wall.

Unit E. Drawer Unit.—This is a unit of drawers with toe space at the floor. The small drawer is for kitchen knives, forks, or spoons. Knives should be placed in grooves or a rack built into the drawer to prevent edges being blunted. The top forms a work surface.

Sink Unit.—An excellent arrangement can be made by building this unit between other units as shown in Fig. 7. This is a flat rimmed, enameled sink, 18 by 30 inches in size, with back and drainboards of maple. The drainboard is usually the top of some other unit. Of course, enameled iron backs and drainboards are to be preferred, but the cost is more.

Unit F. Lower Cupboard Unit.—This unit is a cupboard with a hinged door. It contains no drawer as does unit D.

Unit G. Drawer Unit.—This is a unit of drawers. It differs from Unit E in that it has no toe space. It should be used in combination with units D and F, while unit E combines best with unit C.

Dumb-waiter Unit.—This dumb-waiter is constructed as a part of the built-in equipment. The dumb-waiter saves many steps between the kitchen and basement. In the summer time the waiter is sent down to the cellar, or even better run on down below the cellar floor into a pit or cold well where food can be kept cool. In winter time cold air can be admitted into the dumb-waiter compartment through an opening in the wall. An excellent cold closet is thus provided. (See Fig. 12 for view of the dumb-waiter.)

Cold Box.—Sometimes a box is placed in the window to be used as a refrigerator during the cold months (see Fig. 10).

OTHER EQUIPMENT

Other equipment consists of the stove, sink, work table, refrigerator, and wheel tray. In choosing these pieces of equipment, select types easily cleaned, durable, efficient, and of adequate size.

The kitchen should be equipped so that accurate, skillful work can be done with the least strain and weariness.

Kitchen Stove.—The kind of stove will depend upon the fuel supply. A gas stove would be the first choice where gas is available. Where a coal or wood stove is used, buckets or a box large enough to hold the day's fuel supply should be provided near the stove (see Fig. 11). An oil stove and fireless cooker will do away with much of the discomfort of working over a hot stove during the summer.

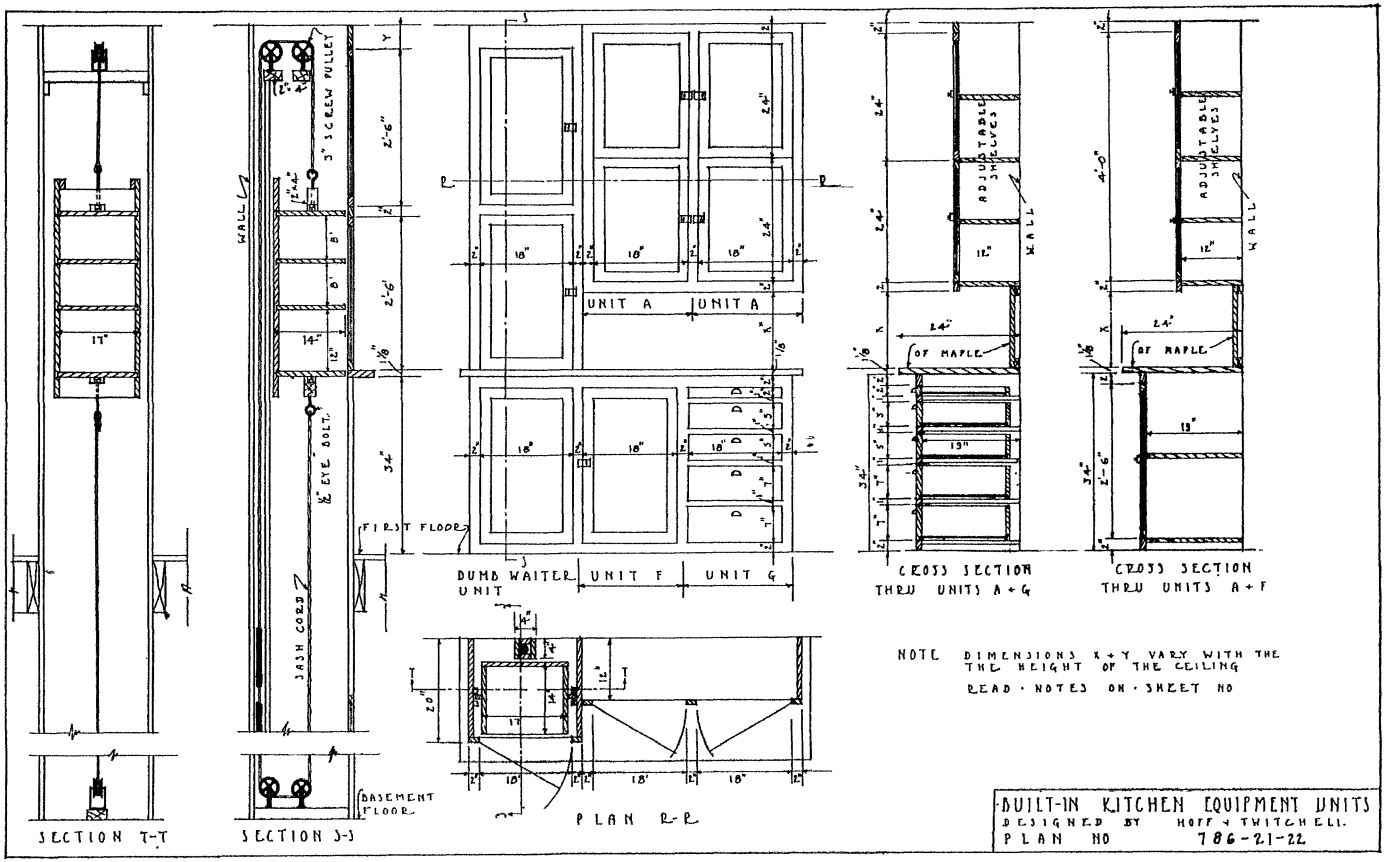

Fig. 9.—Working drawings of dumb-waiter and other built-in kitchen equipment.

In selecting the stove, see that it is well built, and without ornaments that add to the work of caring for it. A high oven is a back saver. Every oven should be equipped with a thermometer or heat indicator. The thermostat on the gas stove regulates the heat at whatever temperature the indicator is set. A warming oven is a convenient place to keep food warm for a short time.

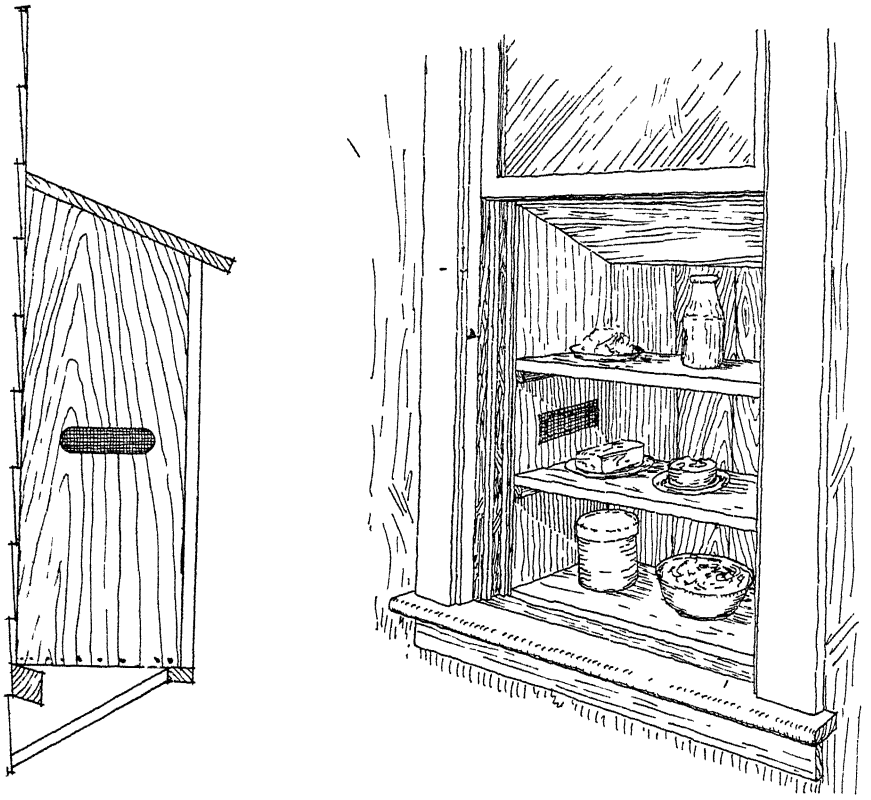

Fig. 10.—A cold box attached to outside of window makes an excellent substitute for a refrigerator during the cool months. The window sash forms front of the box.

Coal oil ranges can be used all the year in kitchens that are heated. When carefully regulated, a good oil range is as satisfactory as a gas range. With a constant supply of coal oil there is no variation in fuel pressure as sometimes happens with gas. The oil vaporizes and burns with a blue flame, giving off intense heat.

Because soft coal is the most economical fuel today in a large part of Ohio, the soft coal range will continue to be used. In summer, a gasoline or coal oil stove should replace the coal range to reduce the temperature in the kitchen.

A metal hood opening into a flue over the range carries off steam, odors, and unnecessary heat from cooking, besides keeping smoke from settling on the ceiling and walls (see cover page).

The Sink.—An enameled iron sink is practical because it is smooth, easily cleaned, and non-absorbent.

If the sink, drainboards, and back are molded in one piece, there are no cracks to catch dirt. If a sink with only one drainboard is chosen, select a sink with the drainboard on the left, so that the dishes may be washed and passed to the drainboard without rehandling or crossing hands in the process. Inexpensive

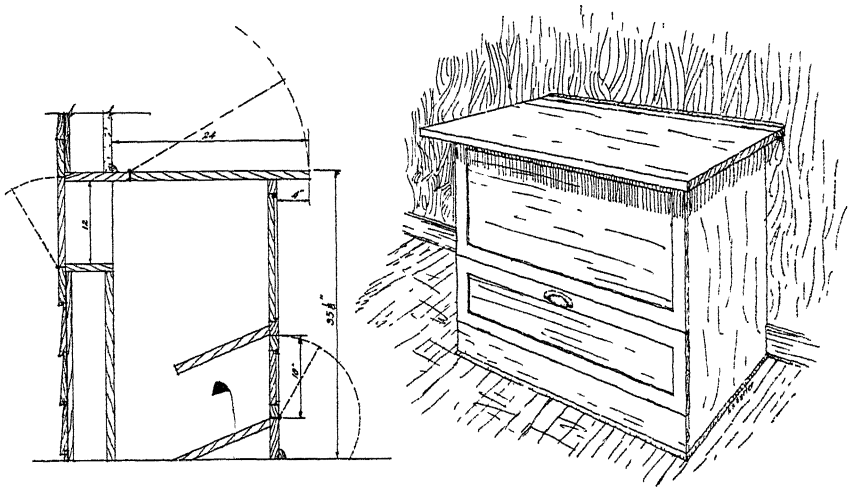

Fig. 11.—A fuel box in the kitchen affords the men or boys no excuse for not carrying in the wood or coal. This box is filled from the outside.

hardwood drainboards may be used, but they are not as sanitary nor as easily kept clean as the enameled iron drainboards made in one piece with the sink.

The sink should be placed high enough for the worker (see discussion of work surface heights, page 10). If she prefers to sit while working at the sink, she can use a high stool, or have the sink placed at a comfortable height for sitting work.

For sanitary reasons, and in order that the family may wash without interfering with the worker, it is desirable to have the lavatory separate from the sink. Drawers and cupboards may be built under the drainboards, but the space under the sink should be left open to give easy access to the plumbing.

Work Table.—The work table should be plain, strong, and of material that is easily kept clean. It should have a minimum free surface of 6 square feet. A rack attached to the work table or a

drawer for spoons, dippers, egg beaters, and other small pieces of equipment increases the usefulness of the work table. The detached work table is being replaced by the pastry table, the commercial kitchen cabinet, and the built-in kitchen equipment cabinet. In buying a pastry table or a kitchen cabinet, see that it is the correct height for the worker, is strong, and made vermin proof by the use of tin or wire screen covering for the bottom.

The pastry table has several drawers and one or more molding boards and bins for storing supplies. The kitchen cabinet combines pantry, work table, and utensil closet.

The table top should be of hard wood or covered with some non-absorbing. material Enameled iron tops are made separate and can be purchased to fit over the wood top. Sheet zinc makes a good table top cover, but it is affected by acid or alkali. Oil cloth which is commonly used is spoiled by hot dishes. Linoleum cemented to the table top gives a good, durable top, not affected by heat. The marble top from an old dresser makes an excellent table top.

Refrigerator.—Some form of cool or cold storage is necessary in every kitchen. The refrigerator is built to serve this purpose. A poorly built refrigerator wastes ice and does not keep foods cold, so it is not an economy. A good refrigerator has a thick layer of insulation in the walls. This insulation is the real ice saver. It keeps hot air out of the box and allows the ice to cool the air inside.

It is an economy to keep the ice compartment full. When the supply of ice is almost gone, the walls of the refrigerator become warm, and the incoming ice has to cool the refrigerator as well as its contents. Buy a refrigerator that is large enough to allow the air to circulate freely. Do not wrap the ice in cloths or papers. Wrapping interferes with the melting of the ice and with circulation of air, both of which are necessary to keep the refrigerator cold.

Where the refrigerator is not used, a dumb-waiter may be built in as described on page 12, and shown in Fig. 12.

Wheel Tray.—The wheel tray saves many steps in serving and clearing away meals. An inexpensive wheel tray can be made from a store box and wheels from a discarded baby buggy or child's wagon. A wash stand, if light weight, equipped with wheels, also makes a good wheel tray.

Small Equipment.—In buying small equipment, the following suggestions should be borne in mind:

Decide what you need before buying.

Get only what is really needed.

Do not purchase an article for which there is not convenient storage space in the kitchen.

Do not be over-persuaded at fairs or by agents.

Keep equipment simple in design. Kettles, saucepans, sink strainer, and bread pans without seams are strong and easy to clean.

Select equipment that will save time. A vegetable brush and pair of scissors should be in every kitchen. An egg beater or bread mixer must not only be efficient, but must be easily cleaned.

Every article should do many times more work than is required to keep it clean.

Group utensils near the place they are to be used—measuring cups, spoons, mixing bowls, and food supplies at work table, cleaning equipment at sink, and cooking utensils near the stove.

Broad utensils heat more quickly than tall narrow ones.

Aluminum is made without seams. It is light and easy to clean.

Enamelware has a smooth surface, is light, and easy to clean. Care should be taken not to chip or crack the surface of the enameled utensils by dropping or striking the edges with a stirring spoon. If utensils of one color are selected, an attractive collection of cooking utensils will result, with no more expense than if a hit and miss lot of various colors are bought.

Tin is light in weight and is suitable for bread and cake pans.

Iron is heavy, but it is still popular for skillets and kettles for deep fat frying.

Earthenware is heavy, but it is very good for slow cooking and has a smooth surface which makes it easy to clean. It is desirable for baking dishes and mixing bowls.

Glassware is coming into greater use for casseroles, pudding dishes, bread and cake pans. It is expensive, but can be used for serving as well as cooking, which saves the use of another dish.

WATER SUPPLY

Water is needed in almost every step of the preparation of food, and in washing and cleaning all kitchen utensils and equipment. It is a waste of the time and strength of the busy housewife to carry water from an outside cistern or well. The farmer no longer does his work with tools that were used 100 years ago, neither should the farm woman do the work of the household with inefficient, out-of-date equipment.

At present prices (1924), a pitcher pump and sink can be installed for $25. A man can do the work of installation without difficulty. For information concerning pumps and different types of water systems see "Getting Water Into Farm Homes" by Virgil Overholt, the Ohio State University, Extension Service.

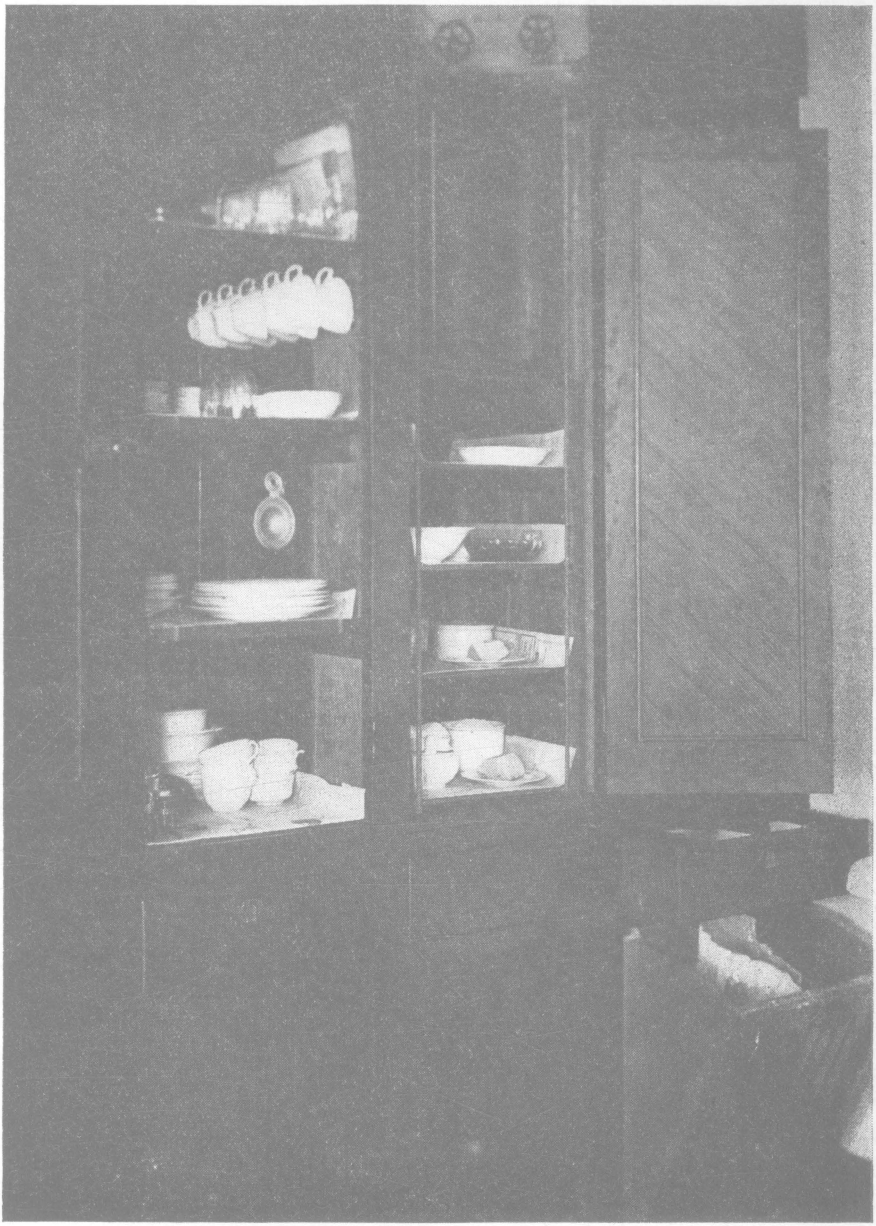

Fig. 12.—This dumb-waiter is built as a unit of the kitchen cupboard. It has been in use for 25 years.

In homes where all the water is carried by hand, about 6 to 8 gallons are used per person daily, but where there is a complete system of running water, between 20 and 30 gallons are used per person, daily. Work is made easier and more sanitary conditions result from an abundant water supply.

FLOOR, WOODWORK, AND WALLS

The background against which all the large equipment is placed is composed of the floor, woodwork, and walls of the kitchen. These should be related in color and design to give a feeling of harmony.

Floor.—The appearance of the floor should add to the attractiveness of the room by harmonizing with the color and finish of the room. For the best artistic effect, the floor should be darkest, the walls lighter, and the ceiling lightest of all. If a scheme having different shades of the same color, with a touch of contrasting color, is carried out in the finish of floors, walls, and ceiling, a pleasing effect is produced.

The best floor for the labor-saving kitchen is one that is easily cleaned, resilient, restful for walking and standing, non-absorbent, not slippery, and inexpensive. Cement and tile floors are sanitary, but they are not resilient and soon tire anyone.

Hardwood floors absorb grease unless properly finished, are expensive, and are not resilient. Soft wood floors absorb grease, soon wear away, and splinter with use.

A soft wood floor covered with a good quality of printed or inlaid linoleum is resilient, easily cleaned, non-absorbent, not slippery, and wears well, but it is higher in first cost than others that are less satisfactory. Linoleum carefully laid over deadening felt and cemented to the floor makes a satisfactory covering, because it is attractive and has the other qualities essential to a good floor. It will last for a long time if cleaned with a solution of mild soap and water and dried quickly. Varnishing printed linoleum, and waxing inlaid and plain linoleum once or twice a year will save the surface and add years to its usefulness. Linoleum is the best all-around floor covering for the kitchen in the average home.

Composition floors are made of materials that are mixed and laid like cement, with the composition material running up to form the baseboard. There is an advantage in this because there is no dust-catching crack around the edge of the room. These floors, like cement and tile, are sanitary, but are uncomfortably hard.

Mastic flooring is another floor covering that can be mixed and laid by anyone who can lay cement. Asphalt, which is the base of all mastic flooring, gives this flooring resilience not

unlike linoleum. Mastic flooring comes in the following colors: black, brown, red, and buff. It is somewhat higher in price than inlaid linoleum, but like composition flooring it has the advantage of being used in an unbroken surface to form the base board as well as the floor covering. Materials for composition and mastic flooring are carried by dealers in builders' supplies.

Woodwork.—The kitchen woodwork should be yellow pine or some other hard wood with a permanent sanitary finish. It may be stained and finished like the other woodwork, or painted or enameled. Light gray, old ivory, or tan woodwork with a hard surface is easily cleaned, and gives the kitchen a clean, sanitary appearance.

Walls.—When the glass area of the windows equals 20 per cent of the floor area there is ample natural light in the kitchen. Where it is impossible to have enough windows in the kitchen to give this amount of light, the walls should be light in color. A white wall reflects 70 per cent of light, while a deep chocolate colored wall reflects only about 4 per cent. A dark blue wall reflects only about one-fourth as much light as a yellow or cream colored wall. Cream color, light green, and very light gray walls are attractive.

Since the kitchen walls must be cleaned occasionally, they should be finished so that cleaning will not be a burdensome task.

Plain or printed oil cloth is the best covering for kitchen walls. It is sanitary, easily washed, attractive, may be procured in different colors, and is durable if properly hung and varnished occasionally. Twenty-five years of service is not unusual for this kind of wall covering.

Paint or enamel over smooth plaster makes a good wall. Plaster marked into brick or tile shapes and painted or enameled is often used and is attractive, but is hard to clean.

Varnished paper is also used. Ordinary paper which will not stand washing should not be used.

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